

IN THE CLAIMS

Please cancel claims 1 to 12 and 15 without prejudice, and renumber and amend the claims as follows:

1 to 12. (canceled)

13. (currently amended) A process for use of an optical part with a laser, said process comprising:

providing said optical part, said optical part being formed of a synthetic quartz glass optical material ~~comprising synthetic quartz glass~~ having an OH group concentration in a range of 5 ~~1~~ to 30 ~~300~~ ppm, a contained hydrogen molecule concentration in a range of 2×10^{18} to 2×10^{19} molecules/cm³, and a transmittance of 99.9% or more of ultraviolet rays having a wavelength of 245 nm, and wherein said synthetic quartz glass optical material is formed so as to have a fictive temperature in the range of 880 to 990°C; and

irradiating said optical part with said laser, said laser being a higher harmonic YAG laser with a third or higher order of harmonic.

14. (currently amended) The process of claim 9, wherein said synthetic quartz glass optical material has a chlorine concentration contained therein of 20 ppm or less.

15. (canceled)

16. (previously presented) The process according to claim 13, wherein the hydrogen molecule concentration is in a range of 4×10^{18} to 8×10^{18} molecules/cm³.
17. (previously presented) The process of claim 13, wherein the higher harmonic of the YAG laser is the third, fourth or fifth order.
18. (previously presented) The process of claim 13, wherein the YAG laser has an order of harmonic that is higher than the third order.
19. (previously presented) The process of claim 13, wherein said irradiating comprises irradiating the optical part with pulses, said pulses having a pulse width of 3 picoseconds to 5 nanoseconds and an oscillation frequency of 10 to 20 Hz.
20. (currently amended) The process of claim 19 18, wherein the higher harmonic of the YAG laser is the third order and said YAG laser has an energy density of 11 J/cm² J/cm³ or lower.
21. (currently amended) The process of claim 19 18, wherein the higher harmonic of the YAG laser is the fourth order and said YAG laser has an energy density of 2.5 J/cm² J/cm³ or lower.

22. (new) The process of claim 13, wherein the synthetic glass material is formed by a method in which the material is heated and then cooled so as to have said fictive temperature in the range of 880 to 990°C.
23. (new) The process of claim 22, wherein the synthetic glass material is cooled at a rate that is slow enough so as to cause said synthetic glass material to have said fictive temperature.
24. (new) The process of claim 23, wherein the synthetic glass material is cooled at a rate of 2.0°C per hour.